



NEIL THOMPSON

ACADEMIA	Research Scientist, MIT Computer Science & A.I. Lab	2018 –
	▪ Previously, Associate Member (2016-2018)	
	Principal Investigator, MIT Initiative on the Digital Econ.	2017 –
	Visiting Professor, Harvard Lab for Innovation Science	2017 – 2019
	Assistant Professor, MIT Sloan School of Management	2013 – 2018
	▪ Teaching: Competitive Strategy (Rating: 4.7/5.0)	
	▪ Teaching: Running Business Experiments (Rating: 4.7/5.0)	
	Co-Director, MIT Experimental Innovation Lab	2016 –
	Associate Member, Broad Institute (Genetics)	2015 –
EDUCATION	PhD in Business & Public Policy (Berkeley, Haas)	2007 – 2012
	▪ PhD Minor: Computational Science and Engineering	
	Masters in Statistics (Berkeley)	2010 – 2012
	Masters in Computer Science (Berkeley)	2008 – 2012
	Masters in Economics (London School of Economics)	2003 – 2004
	Bachelors in Economics / Int'n Development (Queen's)	1997 – 2001
	Bachelors in Physics (Queen's)	1997 – 2000
BUSINESS	AMD (oncology diagnostics start-up with ~\$2M funding)	2008 – 2020
	▪ Board of Directors and Advisor	
	Lawrence Livermore National Laboratory	2008
	▪ Work on next-generation nuclear power and on technology transfer	
	Bain and Company	2004 – 2007
	Senior Associate Consultant (UK, South Africa & Australia)	
	▪ Advised corporate leaders of FTSE 100 companies	
	▪ Led a group of 10+ in a multi-million dollar improvement program	
	Previous Employers	
	United Nations (Poland), Canadian Embassy (Egypt), Canadian Parliament, Canadian Department of Foreign Affairs, World Bank	

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RESEARCH

MOORE'S LAW & COMPUTING PERFORMANCE **There's Plenty of Room at the Top: What will drive growth in computer performance after Moore's Law ends?**
Charles Leiserson, Neil Thompson, Joel Emer, Bradley Kuszmaul, Butler Lampson, Daniel Sanchez, Tao Schardl
Science

The Decline of Computers as a General Purpose Technology
Neil Thompson, Svenja Spanuth
Communications of the ACM (forthcoming)

- Basis of new public-private partnership proposal to the NSF

The Economic Impact of Moore's Law: Evidence from when it faltered
Neil Thompson
Working Paper

The Importance of (Exponentially More) Computing Power
Neil Thompson, Shuning Ge, Gabriel Manso
Working Paper

MACHINE LEARNING & ALGORITHMS **The Computational Limits of Deep Learning**
Neil Thompson, Kristjan Greenewald, Keeheon Lee, Gabriel Manso
Nature Machine Intelligence (in review)

How fast do algorithms improve?
Yash Sherry, Neil Thompson
IEEE Transactions (in review)

Building the Algorithmic Commons: Who discovered the algorithms that underpin modern computing?
Neil Thompson, Shuning Ge, Yash Sherry
Global Strategy Journal

The Computational Price of Deep Learning is Getting Too High
Neil Thompson, Kristjan Greenewald, Keeheon Lee, Gabriel Manso
IEEE Spectrum (in review)

Deep Foundations
Neil C. Thompson, Silviu-Marian Udrescu, Stephan Zheng
MIT Technology Review (in review)

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RESEARCH (CONT.)

TOOLS THAT SHAPE INNOVATION **Gene synthesis allows biologists to source genes from farther away in the tree of life**
Aditya Kunjapur, Philipp Pfungstag, Neil Thompson
Nature Communications

Science is shaped by Wikipedia: Evidence from a Randomized Control Trial

Neil Thompson, Douglas Hanley
American Economic Journal: Applied Economics (In Review)

Decomposing the Tacit Knowledge Problem: Codification of Knowledge and Access in CRISPR Gene-Editing

Neil Thompson, Samantha Zyontz
Organizational Science (In Review)

Lightening the Burden of Knowledge: How Tools Push Out the Frontiers of Science

Neil Thompson, Philipp Pfungstag, Aditya Kunjapur, Joachim Henkel
Working Paper

CORPORATE INNOVATION & PATENTING **University Licensing and the Flow of Scientific Knowledge**
Neil Thompson, Arvids Ziedonis, David Mowery
Research Policy

How to Measure and Draw Causal Inferences with Patent Scope

Jeffrey Kuhn, Neil Thompson
International Journal of the Economics of Business

Does Winning a Patent Race lead to more follow-on Innovation?

Neil Thompson, Jeffrey Kuhn
Journal of Legal Analysis

Why Innovation's Future Isn't (Just) Open

Neil Thompson, Didier Bonnet, Yun (Ines) Ye
Sloan Management Review

Sourcing Innovation in the Digital Age

Neil Thompson, Didier Bonnet, Sarah Jaballah
Strategy Science (In Review)

Innovation's Nimble Giants

Neil Thompson, Burhan Muqbil, Didier Bonnet
Technovation (In Review)

When do Large Firms Resist Radical Innovation

Wenjing Lyu, Neil Thompson, Didier Bonnet
Strategic Management Journal (In Review)

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OTHER PUBLICATIONS	First Solar Neil Thompson, Jennifer Ballen <i>LearningEdge (Business Strategy Teaching Case)</i>	
	Can Software Performance Engineering Save Us From the End of Moore's Law? Charles Leiserson, Tao Schardl, Neil Thompson <i>IEEE Spectrum</i>	
	Addgene Depositors Get More Citations Samantha Zyontz Neil Thompson <i>Addgene Blog Post</i>	
MAJOR GRANTS (AS P.I.)	\$300,000 National Science Foundation - EAGER	2021 – 2022
	\$275,000 Open Philanthropy	2021 – 2023
	\$100,000 MIT-IBM Watson AI Lab	2021 – 2022
	\$300,000 Google.org / Tides	2019 – 2021
	\$ 50,000 Innovation Growth Lab	2017 – 2021
	\$750,000 Capgemini Invent	2017 – 2020
	\$ 75,000 MIT NEC Fund Support	2014 – 2020
AWARDS	Top 5 Paper – Social Science Network Weekly Summary	2019
	Best Paper Award for “Science is Shaped by Wikipedia” (Druid Conf.)	2018
	Best Case Award for “Bringing New Technology to Market” (EFMD)	2018
	#3 most-downloaded paper, Q3 2017 (SSRN)	2017
	Top 10% most-downloaded authors (SSRN)	2016 – 2017
	Wharton Reimagine Education: Stars Hybrid Learning Bronze Award	2016
	Best paper finalist, Druid Conference	2016
	An Academy of Management “Best Paper” award	2012
	Robert Noyce Fellowship	2011 – 2012
	Winner, Greatest Team Impact for the Client (Bain & Company)	2012
British Council Chevening Scholar	2003 – 2004	

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SERVICE / ACTIVITIES	National Commission on Innovation & Competitiveness Frontiers	2020
	Council on Competitiveness	
	The Role of Inducement Prizes (Reviewer)	2020
	National Academies Report	
	Advanced Computing Initiative	2019
	Council on Competitiveness	
	Signals of Trust in Scientific Communication	2018
	National Academics Panel	
	Transformational Technological Advances	2017
	National Academics Panel	
	Gates Foundation – Facilitator, Product Development Workshop	2017
	Government Advisory – Future of Moore’s Law	2016
	Wikipedia - oversaw the creation of 200+ articles on Science, Law, etc.	
STUDENT ADVISEES & CO-AUTHORS	Amn Rahman (MIT)	
	Asya Bergal (Oxford)	
	Bhoomi Thakkar (Veer mata Jijabai Technological Institute)	
	Caroline Fry (MIT)	
	Daniel Rock (MIT)	
	Davide Cannito (Copenhagen Business School)	
	Guillaume Saint-Jacques (MIT)	
	Fangwen Xia (Wellesley)	
	Gabriel Manso (University of Brasilia)	
	Jacob Carlson (Harvard)	
	Jeffrey Kuhn (UC Berkeley)	
	Julia Graham (U.S. Air Force & Tufts)	
	Lucy Hu (UC Berkeley)	
	Mike Teodorescu (Harvard Business School)	
	Nicholas Emery (UCLA)	
	Nicholas Fazzari (MIT)	
	Nur Ahmed (Ivey Business School)	
	Philipp Pfungstag (Technical University of Munich)	
	Raghav Puri (UT Austin)	
	Samantha Zyontz (MIT)	
	Shuning Ge (University of Pennsylvania)	
	Svenja Spanuth (RWTH Aachen)	
	Wenjing Lyu (MIT)	
	Xueyun Luo (Cornell)	
	Yash Sherry (Georgia Tech)	
REVIEWING	Science, Nature Electronics, Technical Forecasting and Social Change, Research Policy, Organizational Science, National Bureau for Economic Research, National Science Foundation	

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INVITED PRESENTATIONS

MOORE'S LAW & COMPUTING PERFORMANCE	BU Technology & Declining Economic Dynamism Conference	Virtual, 2020
	SG Invent: Technology that Matters	Virtual, 2020
	Advanced Computing Roundtable	Virtual, 2020
	Initiative on the Digital Economy Annual Meeting	Cambridge, 2020
	Harvard Kennedy School	Cambridge, 2020
	University of Connecticut	Mansfield, 2020
	Ashesi University	Accra, 2020
	Council on Competitiveness CTO Roundtable	Washington DC, 2019
	DRUID Conference	Copenhagen, 2019
	ISC High Performance Computing keynote	Frankfurt, 2019
	MIT CSAIL Alliances Annual Meeting	Cambridge, 2019
	Council on Competitiveness BUILD workshop	Austin, 2019
	Ottawa University	Ottawa, 2019
	Queen's Smith School of Business	Ontario, 2019
	Council on Competitiveness BUILD workshop	San Diego, 2019
	Initiative on the Digital Economy Lunch Seminar	Cambridge, 2019
	Wharton Innovation Management Conference	Philadelphia, 2018
	Council on Competitiveness BUILD workshop	Pittsburgh, 2018
	Institutions and Innovations Conference	Boston, 2018
	NSF High End Computing Working Group	Washington DC, 2018
	Northeastern University	Boston, 2018
	Harvard Business School Digitization Lunch	Boston, 2018
	Lawrence Berkeley National Laboratory	Berkeley, 2018
	OECD	Paris, 2018
	Trancik Lab Meeting	Cambridge, 2018
	United Health Care Day	Horsham PA, 2018
	Initiative on the Digital Economy Annual Meeting	Cambridge, 2017
	MIT Computer Science and A.I. Lab Lunch presentation	Cambridge, 2017
	Institutions and Innovations Conference	Boston, 2016
	Hebrew University Dept. of Economics Seminar	Jerusalem, 2016
	Moore's Law 2.0 Conference	Washington, 2015
	NYU Stern, Management and Organizations Seminar	New York, 2015
NBER Summer Institute, Innovation Session	Boston, 2015	
NBER Summer Institute, Productivity Session	Boston, 2015	
Carnegie Mellon Strat., Entrep., & Tech. Change Seminar	Pittsburgh, 2015	
Copenhagen Conference on Innovation and Entrep.	Denmark, 2014	
IBM Research Presentation	Yorktown NY, 2014	
National Business Economics Issue Council	Portland, 2014	
Intel Economics Seminar	Santa Clara, 2014	

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INVITED PRESENTATIONS (CONT.)

MOORE'S LAW & COMPUTING PERFORMANCE (CONT.)	Intel Parallelism Tool Seminar	Santa Clara, 2014
	Econ of I.P., Software and the Internet Conference	Toulouse, 2013
	CfP Technological Conference	Stockholm, 2013
	American Economic Association Annual Meeting	San Diego, 2013
	Institutions and Innovation Conference	Cambridge, 2012
	Innovation Seminar	Berkeley, 2012
	Institutional Analysis Seminar	Berkeley, 2012
CCC	Maryland, 2012	
MACHINE LEARNING & ALGORITHMS	Tsinghua Digital Innovation Forum	Virtual, 2020
	MIT CBMM Poster Session	Virtual, 2020
	National Bureau for Economic Research Summer Mtg.	Virtual, 2020
	Industry Studies Association Conference	Virtual, 2020
	MIT CSAIL Fastcode seminar	Virtual, 2020
	AI Strategy Workshop	Virtual, 2020
	Lawrence Berkeley National Lab	Berkeley, 2020
	Initiative on the Digital Economy Lunch Seminar	Cambridge, 2020
	Temple University	Philadelphia, 2020
	Ashesi University	Accra, 2020
Lab for Innovation Science at Harvard	Cambridge, 2019	
TOOLS THAT SHAPE INNOVATION	National Bureau for Economic Research Summer Mtg.	Virtual, 2020
	Wharton Technology and Innovation Conference	Virtual, 2020
	Academic City Plenary Talk	Accra, 2020
	African Academy of Management	Lagos, 2020
	Wikipedia in Academia Conference	Padua, 2019
	Web Conference, Wiki workshop	San Francisco, 2019
	MIT Computer Science Faculty Retreat	Cape Cod, 2019
	Carleton College Convocation	Minnesota, 2019
	MIT Computer Science Faculty Seminar	Cambridge, 2019
	National University Singapore	Singapore, 2018
	AIEA-NBER Conference	Malaysia, 2018
	Searle Innovation Economics Conference	Chicago, 2018
	Academia and Wikipedia Conference	Ireland, 2018
	Druid Conference	Copenhagen, 2018
	London Business School, Sumatra Conference	London, 2018
OECD	Paris, 2018	
Munich Summer Institute	Munich, 2018	
Initiative on the Digital Economy Annual Mtg.	Cambridge, 2018	

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INVITED PRESENTATIONS (CONT.)

TOOLS THAT SHAPE INNOVATION (CONT.)	Entrepreneurship & Innovation Research Conf.	Hong Kong, 2018
	National Academies Panel	Cold Spring Harbor, 2018
	NBER Digitization Meeting	Palo Alto, 2018
	American Economic Association Annual Meeting	Philadelphia, 2017
	MIT TIES Seminar	Cambridge, 2017
	NBER Productivity Lunch	Cambridge, 2017
	Caltech HSS Seminar	Pasadena, 2017
	USC Marshall Digital Seminar	Los Angeles, 2017
	MIT Health Systems Innovation Seminar	Cambridge, 2017
	Kellogg Strategy Seminar, Northwestern	Chicago, 2017
	Institutions and Innovation Conference	Boston, 2017
	Wikimedia Research Showcase	YouTube, 2017
	Harvard Center for Research on Computation & Society	Cambridge, 2017
	Innovation Growth Lab Annual Meeting	Barcelona, 2017
	ZEW/MaCCI Conf. on Innovation and Patenting	Mannheim, 2017
	Smith Entrepreneurship Research Conference	College Park MD, 2017
	MIT Field Experiments Conference	Cambridge, 2015
	Institutions and Innovation Conference	Boston, 2014
	Institutions and Innovation Conference	Boston, 2013
CORPORATE INNOVATION & PATENTING	Global Strategy and Emerging Markets Conference	Virtual, 2020
	Burberry Executive Briefing	Virtual, 2020
	International Paper Executive Briefing	Virtual, 2020
	Capgemini Invent X Annual Conference	Virtual, 2020
	Wharton Strategy Science Conference	Virtual, 2020
	Applied Innovation Exchange	Virtual, 2020
	Wharton Corporate Strategy and Innovation Conference	Philadelphia, 2019
	Spark CXO Forum	Pebble Beach, 2019
	Capgemini Invent X Annual Conference	France, 2019
	CPMC Executive Briefing	Cambridge, 2019
	Boston Univ. Tech. Policy IP Day	Cambridge, 2019
	University of Oslo	Oslo, 2019
	MIT CSAIL Alliances Annual Meeting	Cambridge, 2019
	Initiative on the Digital Economy Annual Conference	Cambridge, 2019
	MIT CIO Symposium	Cambridge, 2019
	MIT Latin American CEO Conference	Silicon Valley, 2019
	Qualcomm I.P. team lunch	San Diego, 2019
	Wharton Technology and Innovation Conference	Philadelphia, 2019
	ILP Management Conference	Cambridge, 2019

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INVITED PRESENTATIONS (CONT.)

CORPORATE INNOVATION & PATENTING (CONT.)	CC Singapore Applied Innovation Exchange	Singapore, 2018
	French Chamber of Commerce	Singapore, 2018
	French Chamber of Commerce	Shanghai, 2018
	CC NY Applied Innovation Exchange	New York, 2018
	Empirical Law Conference	Austin, 2018
	Innovation Growth Lab Annual Meeting	Washington DC, 2017
	North American Patent Office IP Statistics Conf.	Mexico City, 2017
	Boston University Law and Economics Seminar	Cambridge, 2017
	Harvard Law, Economics & Organizations Seminar	Cambridge, 2017
	USPTO - Economic Impacts of Intellectual Property	Alexandria VA, 2017
	Munich Summer Institute	Munich, 2017
	Searle Conference on Innovation Economics	Chicago, 2017
	Shanghai Tech Entrepreneurship and Management Seminar	Shanghai, 2016
	Boston University Strategy and Innovation Seminar	Boston, 2016
	Searle Conference on Innovation Economics	Chicago, 2016
	Roundtable for Engineering Entrepreneurship Research	Atlanta, 2016
	DRUID Conference	Copenhagen, 2016
	EPFL Management of Technology Seminar	Lausanne, 2016
	MIT TIES Seminar	Cambridge, 2016
	Institutions and Innovations Conference	Boston, 2015
CBS Innovation and Organizational Economics Seminar	Copenhagen, 2013	
Academy of Management	Boston, 2012	
Duke Strategy Conference	Durham, 2012	
NBER Summer Institute, Econ of IP and Innovation	Cambridge, 2011	
Roundtable for Engineering Entrepreneurship Research	Atlanta, 2010	